Loss Mitigation Grant Program Wind Resistive Device (WRD) Product Evaluation

The product as described herein has been evaluated by the Department of Commerce and Consumer Affairs (DCCA) for compliance with the technical requirements for wind resistive devices installed in single or multi-family residential dwellings. Installation costs of approved products are partially reimbursable under the provisions of the Loss Mitigation Grant Program. The results of the product evaluation are presented in the following report.

Product Information 1.0

1.1 Product Name:

CPC 55 mm Rolling Shutters

1.2 Description:

The coextruded polymeric composite (CPC) 55 mm rolling shutter is a permanently mounted vertically rolling shutter designed to provide impact and wind pressure protection to glazed openings.

1.3 Category:

Submitted for evaluation as a WRD option 3- Exterior opening protection

1.4 Submitted By:

Hawaii Security Shutters, Inc. 4309 Palahinu Place

Honolulu, HI 96818 Ph: (808) 422-0707

Fax: (808) 422-1311

Manufacturer: a.

CPC 55 mm Rolling Shutters - "Splats" - Polymeric Composite Resins Innovative Protective Products, LLC 742 NE Jensen Beach Blvd. Jensen Beach, FL 34957

b. Technical Representative:

Pedro Figueiredo 6971 W. Sunrise Blvd., Suite 104 Plantation, FL 33313 Ph: (954) 585-0304

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Local Sales Representative: c.

T.R. Bongartz

Hawaii Security Shutters, Inc.

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2.0 Product Evaluation

2.1 Wind Loads:

The CPC 55 mm rolling shutter system has been verified to withstand wind pressures in accordance with sheets 2, 4, 5 and 8 of 9 of drawing No. 06-341. Maximum shutter width, anchor and mullion spacing shall be determined in accordance with these sheets for the required design wind pressures.

No static or cyclic wind pressure test report has been submitted at this time. Although sheet 1 of 9 of drawing No. 06-341 indicates that this product has been tested (and passed) under ASTM E330 for static loading and ASTM 1996 for cyclic loading no substantiation of this claim has been provided.

2.2 Impact Resistance:

No impact test results have been submitted. Drawing No. 06-341 indicates that this product has been tested for large missile impact under the protocol of ASTM 1996. According to a note in the referenced drawing, the CPC 55 mm rolling shutter system obtained a missile impact rating of D, however no substantiation of this claim has been provided.

2.3 Installation:

Installation shall be performed strictly in accordance with the details indicated on sheets 1 through 9 of 9 of drawing No. 06-341.

2.4 **Substantiating Data:**

a. Drawing Number 06-341, titled "CPC 55mm Rolling Shutter", sheets 1 through 9 of 9, prepared by Engco, Inc., signed and sealed by Pedro Figueiredo, P.E. (FL License No. 52609) dated 6/25/2005

3.0 Findings

Evaluation in review of the submitted data indicates that although the CPC 55mm Rolling Shutter as described in this report may conform to the requirements of the loss mitigation grant program, insufficient test data has been submitted at this time to approve this product as an acceptable WRD. Furthermore, anchorage details have not been provided for single wall construction common to Hawaii. Additional data must be submitted for WRD approved use on this type of construction. Also, wood connection anchorage schedules are given only for attachments to Southern Yellow Pine members. Provide an alternative or approved connection schedule for attachment to more commonly used Douglas fir.

3.1 Limitations:

- a. The CPC 55 mm rolling shutter system is conditionally approved as an acceptable WRD for use on masonry construction only, subject to these limitations:
- b. Minimum testing and test report information required per Section 4.0 of the Hawaii Department of Commerce and Consumer Affairs *Submittal Requirements for Product Evaluations* must be submitted for further consideration.
- c. For WRD approved use on typical wood construction, provide alternative or approved connection schedule for attachments to Douglas fir framing
- d. Submit additional details and test data for approved use on single wall construction.
- e. Design wind loads for product installation shall be determined in accordance with ASCE 7-05. On Oahu, exposure, directionality and topographic factors shall be per the Honolulu Building Code.

Gary Y. K. Chock, S.E. Product Examiner May 14, 2008

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